

XIX.—Notes on the Natural History of East Finmark. By
Canon A. M. NORMAN, M.A., D.C.L., LL.D., F.R.S.,
F.L.S.

[Continued from p. 32.]

PODOSOMATA, Leach.

(=PANTOPODA, Dohrn.)

IN the following list the species without habitat have been found by G. O. Sars in the Varanger Fiord except *Nymphon macrum* and *Chaetonymphon macronyx*, which were dredged by the Norwegian North-Atlantic Expedition, Stat. 262, lat. 70° 36' N., long. 32° 35' E., in 148 fathoms, in the sea to the east of Vardö*.

Pycnogonum littorale, Ström.

Phoxichilidium femoratum, Rathke. Vadsö, tide-marks.

Pseudopallene circularis, Goodsir, = *P. intermedia* and *P. discoidea*, Kröyer.

— *spaiipes*, Fabricius.

Cordylochele brevicollis, G. O. Sars.

Nymphon longitarse, Kröyer. Dredged near Vadsö.

— *gracilipes*, Heller.

— *macrum*, Wilson.

Chaetonymphon lirtipes, Bell. Varanger and Bög Fiords.

— *macronyx*, G. O. Sars.

Boreonymphon robustum, Th. Bell, = *Nymphon abyssorum*, Norman. Varanger Fiord, 125 fathoms. It is the first time that this species, which is abundant in great depths in the Arctic Ocean, has been found in a fiord.

INSECTA.

COLEOPTERA.

Herr Schneider informs me that he knows about 400 species of Coleoptera from Sydvaranger, but that he does not wish to publish a fresh list until he has worked out certain groups. The coleopterist may, however, refer to Herr Schneider's paper, "Sydvarangers entomologiske Fauna, 1st Bidrag, Coleoptera," Tromsø Mus. Aarsh. xv. 1893, pp. 17-104. One hundred and ninety species are recorded in that paper.

* Sars (G. O.), 'Norwegian North-Atlantic Expedition,' Pycnogonidea (1891).

HYMENOPTERA.

Bombidæ of Sydvaranger. By J. SPARRE SCHNEIDER.

Bombus alpinus, <i>Zetterstedt.</i>	Bombus Kirbyellus, <i>Curtis</i> , = ni- valis, <i>Zetterstedt.</i>
— lapponicus, <i>Fabr.</i>	
— pratorum, <i>Linné.</i>	
— terrestris, <i>Linné.</i>	
— jonellus, <i>Kirby</i> , = scrim- shiranus, <i>auct.</i>	
	— hypnorum, <i>Linné.</i>
	— hyperboreus, <i>Schönh.</i>
	Psithyrus vestalis, <i>Fowser.</i>

The third part of the second volume of Römer and Schaudinn's 'Fauna Arctica' has reached me to-day (Dec. 20, 1902). The first paper in this part is by Hans Kiaer, "Die arktischen Tenthrediniden," which contains many East Finmark records; but these will be found more fully given in a paper by the same author, "Uebersicht der phytophagen Hymenopteren des arktischen Norwegens," in 'Tromsø Museums Aarshefter,' vol. xix. 1898.

The second paper is by H. Friese, "Die arktischen Hymenopteren mit Ausschluss der Tenthrediniden." This is illustrated by a plate, which gives excellent coloured figures of Bombidæ, including some of the species in Herr Schneider's list here given, together with some notes by my friend on the family. H. Friese gives the number of Hymenoptera (exclusive of Tenthredinidæ) which are found in Arctic Norway and Lapland as three hundred and eighty (including forty-five Apidæ, of which fifteen belong to *Bombus*), but there is no separate information with respect to the East Finmark species.

LEPIDOPTERA of Sydvaranger*. By J. SPARRE SCHNEIDER.

RHOPALOCERA.

Papilio machaon, <i>L.</i>	Lycæna argyrognomon, <i>Bergst.</i> (= argus, <i>auct.</i>)	
Pieris brassicæ, <i>L.</i>		
— rapæ, <i>L.</i>		
— nipsis, <i>L.</i> , var. bryoniæ, <i>O.</i>		
Colias palæno, <i>L.</i> , and var. lap- ponica, <i>Stgr.</i>		
Thecla rubi, <i>L.</i>		
Polyommatus phlœas, <i>L.</i> , var. americana, <i>Darb.</i>		
— amphidamas, <i>Esper.</i>		
		— oplilete, <i>Kn</i> , var. cyparissus, <i>Hb.</i>
		— eumedon, <i>Esp.</i>
	Vanessa urticæ, <i>L.</i> , var. polaris, <i>Stgr.</i>	
	— antiopa, <i>L.</i>	
	— cardui, <i>L.</i>	
	Melitæa iduna, <i>Dalm.</i>	

* For full notes on the Lepidoptera of Sydvaranger see "Sydvarangers entomologiske Fauna, 2^{det} Bidrag, Lepidoptera," J. Sparre Schneider, Tromsø Museums Aarshefter, xviii. 1895. A few species are added by Herr Schneider in this list, in order to complete it up to the present time.

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| Melitæa parthenie, <i>Bkh.</i> | Argynnis polaris, <i>B.</i> |
| Argynnis aphirape, <i>Hb.</i> , var. cssi-
anus, <i>Hbst.</i> | — freya, <i>Thbg.</i> |
| — selenæ, <i>Schiff.</i> , and var. hela,
<i>Stgr.</i> | — frigga, <i>Thbg.</i> |
| — euphrosyne, <i>L.</i> , var. fingal,
<i>Hbst.</i> | — aglaia, <i>L.</i> |
| — pales, <i>S. F.</i> , var. lapponica,
<i>Stgr.</i> | Erebia lappona, <i>Esp.</i> |
| — arsilache, <i>Esp.</i> , var. lapponica,
<i>Schöyen.</i> | — embla, <i>Thbg.</i> |
| | — disa, <i>Thbg.</i> |
| | Geneis norna, <i>Thbg.</i> |
| | — bore, <i>Schn.</i> |
| | Syrichthus centaureæ, <i>Rbr.</i> |

SPHINGES.

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|--------------------------------|---|
| Acherontia atropos, <i>L.?</i> | Zygæna exulans, <i>Hock.</i> , and var. |
| Sphinx pinastri, <i>L.?</i> | vanadis, <i>Dalm.</i> |
| Deilephila Galii, <i>Roth.</i> | Sesia culiciformis, <i>L.</i> |

BOMBYCES.

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|---|---|
| Nola karelica, <i>Tystr.</i> (=arctica,
<i>Schöyen.</i>) | Leucoma salicis, <i>L.</i> |
| Arctia festiva, <i>Bkh.</i> | Bombyx crategi, <i>L.</i> , var. ariæ, <i>Hb.</i> |
| — Quensellii, <i>Payk.</i> , var. gelida,
<i>Mösch.</i> | Eriogaster lanestris, <i>L.?</i> |
| Spilosoma fuliginosa, <i>L.</i> , var.
borealis, <i>Stgr.</i> | Saturnia pavonia, <i>L.</i> |
| Hepialus fusconebulosus, <i>De Geer</i>
(=vellida, <i>Hb.</i>). | Notodonta dromedarius, <i>L.</i> |
| Phymatopus hecta, <i>L.</i> | — dictæoides, <i>Esp.</i> , var. frigida,
<i>Zett.</i> |
| Psyche Standfussii, <i>H.-S.</i> | Cymatophora duplaris, <i>L.</i> |
| | Asphalia flavicornis, <i>L.</i> , var. em-
marchica, <i>Schöyen.</i> |

NOCTUÆ.

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| Acronycta auricoma, <i>S. F.</i> , var.
pyhævaræ, <i>Hoffm.</i> | Plusia parilis, <i>Hb.</i> |
| Agrotis hyperborea, <i>Zett.</i> | — diasema, <i>B.</i> |
| — gelida, <i>Sp. Schneider.</i> | — Hochenwarthi, <i>Heck.</i> |
| — speciosa, <i>Hb.</i> , var. arctica,
<i>Zett.</i> | Anarta Bohemanni, <i>Stgr.</i> |
| — (Pachnobia) carnea, <i>Thbg.</i> | — cordigera, <i>Thbg.</i> |
| — conflua, <i>Tr.</i> | — melaleuca, <i>Thbg.</i> |
| Mamestra glauca, <i>Hb.</i> , var. lappo,
<i>Dup.</i> | — funebris, <i>Hb.</i> |
| Hadena Maillardi, <i>Hb.</i> | — melanopa, <i>Thbg.</i> |
| — adusta, <i>Esp.</i> | — quieta, <i>Hb.</i> (=Schoenherri,
<i>Zett.</i>). |
| Anomogyna lætabilis, <i>Zett.</i> | — Schoenherri, <i>Stgr.</i> (non <i>Zett.</i>). |
| Orthosia iris, <i>Zett.</i> , var. crasis, <i>H.-S.</i> | — lapponica, <i>Thbg.</i> |
| Plusia interrogationis, <i>L.</i> | — Zetterstedtii, <i>Stgr.</i> |
| | Brephos parthenias, <i>L.</i> |

GEOMETRÆ.

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|-----------------------------------|---|
| Acidalia fumata, <i>Styh.</i> | Psodos coracina, <i>Esp.</i> |
| — Schöyeni, <i>Sp. Schneider.</i> | Pygmæna fusca, <i>Thbg.</i> |
| Selenia bilunaria, <i>Esp.</i> | Fidonia carbonaria, <i>Cl.</i> |
| Ploseria pulverata, <i>Thbg.</i> | Anaitis paludata, <i>Thbg.</i> , and var.
obscurata, <i>Schöyen.</i> |
| Biston pomonarius, <i>B.</i> | Lobophora carpinata, <i>Bkh.</i> |
| Gnophus sordaria, <i>Thbg.</i> | |

Lygris prunata, *L.*
 — populata, *L.*
 Cidaria truncata, *Hufn.*, var.
Schneideri, Sandberg.
 — munitata, *Hb.*
 — turbata, *Hb.*, var. arctica,
Schöyen.
 — incurvata, *Hb.*
 — fluctuata, *L.*
 — montanata, *Bkh.*, var. lap-
 ponica, *Stgr.*
 — ferrugata, *Cl.*, var. (ab.) spa-
 dicearia, *Bkh.*
 — suffumata, *S. V.*, var. arctica,
Schöyen.
 — designata, *Hufn.*
 — abrasaria, *H.-S.*

Cidaria dilutata, *Schiff.*
 — cineraria, *Schöyen.*
 — cæsiata, *Lvng.*
 — sociata, *Bkh.*
 — lugubrata, *Staußgr.*, var.
 obductata, *Moeschl.?*
 — subhastata, *Nolck.*
 — affinitata, *Stph.*, var. turbaria,
Stph.
 — minorata, *Tr.*
 — alchemillata, *L.*
 — adæquata, *Bkh.*
 — albulata, *Schiff.*
 Eupithecia togata, *Hb.?*
 — hyperboreata, *Stgr.*
 — satyrata, *Hb.*
 — altenaria, *Stgr.*

PYRALIDINA.

Scoparia centuriella, *Schiff.*
 — gracilalis, *Stt.*
 — sudetica, *Z.*
 — murana, *Curt.*, var. tuoniana,
Hoffm.
 Botys decrepitalis, *H.-S.*
 — inquinatalis, *Z.*
 Crambus ericellus, *Hb.*

Crambus truncatellus, *Zett.*
 — maculalis, *Zett.*
 — furcatellus, *Zett.*
 — biarmicus, *Tgstr.*
 Pempelia fusca, *Hw.*
 Myeloides annulatella, *Zett.*
 — tetricella, *S. V.*

TORTRICINA.

Tortrix ministrana, *L.*
 — Forsterana, *F.*
 — viburnana, *S. V.*
 — rubicundana, *H.-S.*
 — lapponana, *Tgstr.*
 Sciaphila ooseana, *Scop.*
 Cochylis deutschiana, *Zett.*
 Retina resinella, *L.?*
 Penthina sororculana, *Zett.*
 — dimidiana, *Sodoff.*
 — sauciana, *Hb.*
 — lediana, *L.*
 — turfosana, *H.-S.*
 — metallicana, *Hb.*
 — nebulosana, *Zett.*
 — palustrana, *Z.*
 — Schæfferana, *H.-S.*

Penthina Schutziana, *F.*, and var.
 jivaarana, *Hoffm.*
 — rivulana, *Scop.*
 — cespitana, *Hb.*
 — lacunana, *S. V.*
 — bifasciana, *Hw.*
 — bipunctana, *F.*
 Grapholitha subocellana, *Don.*
 — tetraquetraua, *Hw.*
 Steganoptycha ericetana, *H.-S.*
 — quadrana, *Hb.*
 — Gyllenbaliana, *Thbg.*
 — mercuriana, *Hb.?*
 Phoxopteryx uncana, *L.*
 — unquicella, *L.*
 — myrtillana, *Tr.*

TINEINA.

Talæporia borealis, *Wk.*
 Solenobia cembrella, *L.*
 Scardia tessulatella, *Z.*
 Blabophanes rusticella, *Hb.*
 Tinea arcuatella, *Stl.*
 — cloacella, *Hw.*
 — picarella, *Cl.*

Tinea sp.?
 Myrmecozela ochraceella, *Tgstr.*
 Incurvaria velutella, *Zett.*
 — capitella, *Cl.*
 — rupella, *Schiff.*
 Nemophora Panzerella, *Hb.*
 Adela Esmarkella, *Wocke.*

Adela cuprella, <i>Thbg.</i>	Gelechia viduella, <i>F.</i>
Swammerdamia griseocapitella, <i>Zett.</i>	— diffinis, <i>Hw.</i>
— conspercella, <i>Tgstr.</i>	Pleurota bicostella, <i>L.</i>
Argyresthia Gødarteila, <i>L.</i>	Ceophora stipella, <i>L.</i>
Plutella cruciferarum, <i>Z.</i>	— similella, <i>Hb.</i>
Semioscopis avellanella, <i>Hb.</i>	Ornix, <i>sp.</i>
Depressaria ciniflonella, <i>Z.</i>	Coleophora laripennella, <i>Z.</i>
Gelechia infernalis, <i>H.-S.</i>	Butalis chenopodiella, <i>Hb.</i>
— continuella, <i>Z.</i>	Endrosis lacteella, <i>Schiff.</i>
— virgella, <i>Thbg.</i>	Elachista atricomella, <i>Stt.?</i>
— perspercella, <i>Wk.</i>	Lithocolletis rayella, <i>L.</i>
— lugubrella, <i>F.</i>	Nepticula <i>sp.</i>

MICROPTERYGINA.

Micropteryx aureatella, <i>Scop.</i>	Micropteryx semipurpurella, <i>Stph.</i>
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PTEROPHORINA.

Platyptilia Zetterstedtii, <i>Z.</i>	Leioptilus tephradactylus, <i>Hb.</i>
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Notes on the List of Lepidoptera. By A. M. N.

Entomologists who desire to know the synonymy and learn the Arctic distribution of the Sydvaranger Lepidoptera may consult Dr. Arnold Pagenstecher's "Die arktische Lepidoptera" in the 'Fauna Arctica,' vol. ii. 1902, pp. 193-400. It should be borne in mind, however, that the catalogue given here by Schneider is still later than that of Pagenstecher.

It may be interesting to throw into tabular form the Sydvaranger Lepidoptera, and for comparison with them the numbers of Lepidoptera which are known to inhabit a locality in West Norway as well as those of other Arctic parts of Norway.

Column 1 is filled in from Schneider (J. Sparre), "Coleoptera og Lepidoptera ved Bergen og i nærmest omegn," Bergens Museum Aarbog, 1901.

Columns 3 and 5 from Schneider (J. Sparre), "Lepidopterfauna'en på Tromsøen og i nærmeste omegn," Tromsø Museums Aarshefter, xv. 1893, p. 150.

Columns 2 and 4 from Schneider (J. Sparre), "Tillæg til Tromsø og omegns Lepidopterfauna," Tromsø Museums Aarshefter, xxiii. 1901, p. 200.

Column 6 from this paper.

These figures show how very rich Sydvaranger is in larger Lepidoptera, and especially in butterflies. No doubt considerable additions will be hereafter made to the groups of smaller species. Considering the small area of country

included in Sydvaranger and its Arctic situation the list must be considered altogether very full.

	Bergen.	Whole of Arctic Norway.	Saldalen.	Tromsö.	Alten.	Sydvaranger.
Rhopalocera	28	49	30	18	26	31
Sphinges	6	10	2	4	2	5
Bombyces	24	29	14	4	7	15
Noctuæ	59	50	25	14	22	25
Geometræ	76	84	57	30	38	33
Pyralidina	24	37	23	11	18	14
Tortricina	45	80	38	28	39	32
Tineina	24	109	51	35	62	38
Mycropterygina	1	4	3	2	3	2
Pterophorina	4	10	7	2	2	2
Alucitana	1	0	0	0	0	0
	292	462	250	148	219	202

DIPTERA.

One most unpleasant experience in Sydvaranger is derived from the enormous swarms of mosquitos. These are bred in the marshy ground near the margin of the fiords, and when dredging clouds were perpetually settling upon us. The natives escaped, however, their persecution altogether; my Norwegian friends were not much troubled; but I was a victim, containing delicious sweet blood which no previous mosquitos had tainted, and they made the most of me. Hands, forehead, and neck were one mass of bites, and for a fortnight the irritation was most trying; however, smearing all exposed parts with oil of cloves did not a little to keep them off, and after a time they did not attack me so cruelly as they had done at first. Why was this? It is a wonderful thought, but yet it is, I believe, the fact that the bites of these little wretches had at the same time that they sucked my blood infused something into the blood they were sucking which had affected the whole of that in my body in such a way that their wonderful power of scent told other mosquitos that it was no longer so delicious as it had been, in that it had now been subjected to the attacks of their brethren. Although the bites of these mosquitos are not malaria-

infecting, the extreme irritation naturally made their martyr very feverish. Luckily they attack by day in bright sunshine, and did not come into the house at night.

I think that there must be two species of these mosquitos, because while all vestige of hundreds of bites has passed away, about a dozen spots still remain, and through life will remain, on the backs of my hands, to remind me of the Sydvaranger pests, and to point to some of them as apparently belonging to a more venomous kind than the majority*.

The following is what M. de Guerne writes concerning these mosquitos (*l. c.* † p. 21), as experienced by him in Klosterelv Fiord:—"Malheureusement, au mois de juillet, les moustiques gâtèrent tout le charme de ce séjour. Ils s'abattaient en foule sur la navire, pénétrant jusque dans la cale, sans qu'il fût possible de leur faire une guerre efficace. Un des officiers du bord étant descendu à terre sans avoir revêtu l'indispensable voile de gaze, reparut méconnaissable au bout de quelques heures; ces maudites bestioles l'avaient tellement piqué autour des yeux que ses paupières gonflées l'empêchaient de voir. Je comprends aujourd'hui la kyrielle d'épithètes injurieuses lancées contre ses insupportables diptères par tous ceux qui ont visité le Finmark. Avant le départ j'étais disposé à trouver leurs récits exagérés sur le point; il n'en est rien. A l'heure présente, ayant souffert comme mes prédecesseurs, je suis d'avis que la vocabulaire français n'offre pas le qualificatif assez énergique pour désigner ce lamentable fléau, cette peste vivante causée par un insecte si bien appelé par Pallas *infestissimus*."

Again, writing of the banks of the Pasvik River he says (p. 33):—"Il est impossible de se faire une idée de l'abondance extraordinaire de ces odieux insectes; tout les récits à ce sujet paraissent absolument exagérés, il n'en est rien. On a plein les yeux de moustiques, plein la bouche en mangeant, plein le nez; le moustiquaire est indispensable et l'on ne peut quitter les gants. Je me suis plusieurs fois enfoncé les mains dans les chaussettes pour supprimer toute interruption entre les gants et la manche de l'habit; les poignets sont noirs de ces sales bêtes. Plusieurs fois, le sommeil m'a été impossible à cause de ces maudits animaux; on a beau s'enfumer, se couvrir d'huile aromatique, il en vient tant et

* Herr Schneider informs me that common species of the district are *Culex nemorosus*, Mug., *C. pipiens*, Linn., *C. cantans*, Mug., and *C. annulatus*, Fabr.

† 'Union Géographique du Nord de la France. Conférences faites par M. Jules de Guerne. Souvenirs d'une Mission Scientifique en Laponie, 1880.'

tant qu'on est malgré tout forcé de souffrir. Jugez d'après cela de ce que sont les nuits passées en plein air sur les bords du Pasvik, j'étais bien heureux de rencontrer en passant de pauvres cabanes éclairées par la cheminée seule; j'entrais à genoux dans ces réduits enfumés où j'avais au moins la satisfaction de reposer tranquillement à l'abri des insupportables diptères. Une exploration scientifique est assez méritoire dans les pareilles conditions."

[To be continued.]

XX.—*On some new Genera and Species of Parasitic and Fossorial Hymenoptera from the Khasia Hills, Assam.*
By P. CAMERON.

Ichneumonidæ.

JOPPINI.

IMERIA, gen. nov.

Head large, cubital, largely developed behind the eyes; the occiput roundly convex, its sides not distinctly margined. Eyes parallel; the malar space large. Clypeus not separated from the face, indistinctly foveate at the base. Mandibles large; their apex with two large, equal, widely separated, long, sharply pointed teeth. Scutellum longer than broad; its sides with large, narrow, leaf-like keels. Median segment areolated at the base; the sides of the apex sharply keeled, the middle of the keel with a blunt tooth; the spiracles elongate, curved, broadest at the base. Prosternum large, leaf-like below, with a distinct margin. Legs: the fore tarsi twisted at the base. Abdomen not much longer than the head and thorax united, with eight segments; the ventral fold on the second and third segments; the ovipositor largely projects. Areolet oblique, almost triangular. Antennæ dilated and compressed towards the apex.

Belongs to the Joppini and resembles somewhat the Neotropical genus *Ædicephalus*. It comes near *Xenojoppa*, Cam., *olim Margrettia*, Cam., from which it may be known by the hinder coxæ not being toothed, by the keels on the scutellum not being raised and leaf-like, by the face and clypeus forming one piece, by the petiole not being perceptibly thickened towards the apex, by its spiracles being